U.S. Patent Application No. 10/706,506 Amendment dated December 22, 2006

Reply to Office Action of June 23, 2006

Amendments to the Drawings:

The attached drawing sheet replaces Fig. 6. The replacement sheet of Figure 6 shows that

the collapsible plate is located on elongated instrument 20. To make this clear, the hash lines have

been re-drawn, and elongated instrument 20 has been drawn to show that it is extending beyond the

elongated instrument 30.

Attachment:

Replacement Sheet

Annotated Sheet Showing Changes to Fig. 6

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REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested. Claims 1, 3-18, and 20-35 are pending in the application.

Figure 6 has been amended in view of the Examiner's comments set forth in the present Office Action. Essentially, replacement Figure 6 more clearly shows that the collapsible plate is located on the elongated instrument, as opposed to the guide. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

Objection to Figure 6

At page 2 of the Office Action, the Examiner objects to Figure 6 and asserts that the collapsible plate (40) appears to be located on the guide, rather than on either of the elongated instruments as disclosed. This objection is respectfully traversed.

New Figure 6 was intended to show that the collapsible plate is located on elongated instrument 20. To make this more clearer, the hash lines have been re-drawn, and elongated instrument 20 has been drawn to show that it is extending beyond the elongated instrument 30. Accordingly, this objection should be withdrawn.

Rejection of claims 1, 3-18, 20-24, and 26-35 -- 35 U.S.C. §112, second paragraph

At page 3 of the Office Action, the Examiner rejects claims 1, 3-18, 20-24, and 26-35 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner is asserting that these claims recite distinct species and, therefore, are indefinite. This rejection is respectfully traversed.

It is the applicant's understanding that claims can recite multiple species in a single claim and that there is no provision in §112 or the M.P.E.P. that prevents the recitation of several species.

Furthermore, the claims, when read by one of ordinary skill in the art, are clear and therefore would

be definite under 35 U.S.C. §112. The metes and bounds of these claims are clearly understood,

and this appears to be appreciated by the Examiner. To address this rejection, the Examiner is

essentially requiring multiple claims to individually claim each species, which does not appear to be

a requirement under 35 U.S.C. §112 or the M.P.E.P. or 37 C.F.R.

Particularly, under M.P.E.P. 2173.05(h), there is clear recognition that alternative

expressions in a claim are permitted if they present no uncertainly or ambiguity with respect to the

question of scope or clarity of the claims. This is the case in the present claims where it is clear

what the scope of the claims are.

Accordingly, the applicant believes that this rejection should be withdrawn.

Rejection of claim 25 under 35 U.S.C. §103 -- Sequin in view of Woolfson et al.

At page 4 of the Office Action, the Examiner rejects claim 25 under 35 U.S.C. §103(a) as

being unpatentable over Sequin (U.S. Patent No. 6,830,584) in view of Woolfson et al. (U.S. Patent

Application Publication No. 2004/0034380). The Examiner asserts that Sequin shows a method for

removing and replacing a heart valve by positioning a device with expandable cutting members on

either side of a heart valve and the use of balloon members that are inflated within the vessel and

installing a new valve. The Examiner acknowledges that Sequin does not show non-mechanical

cutting means, but asserts that it would be obvious to use non-mechanical means in view of

Woolfson et al. This rejection is respectfully traversed.

Claim 25 of the present application recites a means for cutting a heart valve, which includes

positioning a first collapsible plate and a second collapsible plate, as recited in claim 25. The claim

further recites positioning at least one non-mechanical cutting device approximate to the heart valve,

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and then recites the additional steps set forth in claim 25.

As apparently appreciated by the Examiner, Sequin relates to a specific device for replacing a cardiac valve, but uses two mechanical cutting devices which are referred to as two series of elongated blades. The Examiner asserts that these elongated blades would serve as collapsible plates in comparing Sequin with claim 25 of the present application. The Examiner further contends that it would be obvious to use a laser as shown by Woolfson et al. in the method of Sequin as "an alternative cutting means." However, this are several problems with this rejection. First, if one used the alternative cutting means of Woolfson et al. in Sequin, then there would be no reason to use the two series of elongated blades of Sequin. It appears the Examiner is arguing that it would be obvious to replace the mechanical cutting devices of Sequin with the laser of Woolfson et al., but if this is done, then the two series of elongated blades are no longer needed in Sequin and, therefore, Sequin, as modified by the Examiner, would no longer have a first collapsible plate or second collapsible plate as alleged by the Examiner. Put another way, there would be no reasons to include an additional cutting means in Sequin and yet keep the two series of elongated blades. This type of modification would not be logical and would create multiple problems, since the method of Sequin would essentially have three portions of the vessel cut. Clearly, the whole purpose of Sequin is to use mechanical cutting means, by using two series of blades that are deployed. If these two series of blades are made obsolete by the Examiner's argument that alternative cutting means are used, then the whole method of Sequin is being ignored. Further, even if this modification is possible, then the two series of blades would not be needed and, therefore, the Examiner's argument that the cutting members serve as collapsible plates would no longer be justified.

Furthermore, the primary emphasis of Woolfson et al. is to use mechanical cutting members, and the Examiner's reference to paragraph (0293) of Woolfson et al. is a passing comment that

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possibly a valve debridement tool may comprise a laser. No details or discussion are shown on how

this is to be implemented.

It is also noted that at least one of the first collapsible plates in claim 25 serves multiple

purposes -- one being to confine the area where the cutting of the heart valve is occurring, but also,

the second collapsible plate, at least, is made from a material through which laser light does not

pass. Essentially, the second collapsible plate provides some means of protection to avoid the non-

mechanical device from cutting or damaging areas outside of the intended cutting area. This simply

is not taught or even appreciated in any of the references.

Accordingly, this rejection should be withdrawn.

CONCLUSION

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of

this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees

to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. §

1.136 not accounted for above, such extension is requested and should also be charged to said

Deposit Account.

Respectfully submitted,

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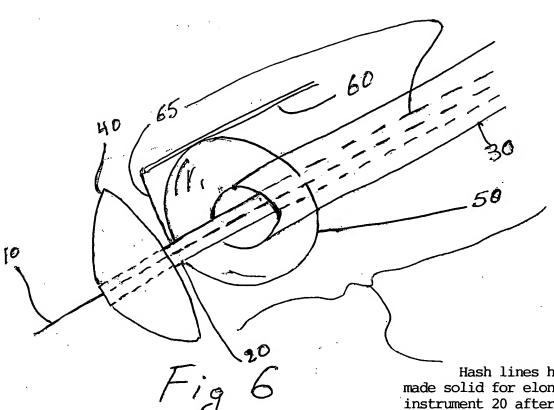
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U.S. Patent Application No. 10/706,506 Amendment dated December 22, 2006 Reply to Office Action of June 23, 2006 Annotated Sheet Showing Changes





Hash lines have been made solid for elongated instrument 20 after exiting elongated instrument 30 and hash lines corresponding to elongated instrument 20 and guide 10 have been corrected